

IN THE CLAIMS:

1. (Currently Amended) A fracturing fluid comprising a polar base, 0.1-5.0% of a mid-molecular weight polyacrylate, ~~and~~ an activator for ionizing said polyacrylate to a hygroscopic state and a breaker in an amount of 0.1-1.0% wt, wherein said breaker is NaCl or KCl ~~KCl~~.

2. (Previously Presented) A fracturing fluid comprising a polar base, 0.1-5.0% of a mid-molecular weight polyacrylate, and an activator for ionizing said polyacrylate to a hygroscopic state, wherein said polyacrylate is a polyacrylic acid polymer cross linked with polyalkenyl ethers or di-vinyl glycol.

3. (Original) A fluid as claimed in claim 2, wherein said polyacrylate is present in particles of about 0.2 micron diameter.

4. (Original) A fluid as claimed in claim 3, wherein said fluid is provided with 0.1-5.0% (wt) of an activator to initiate hydration of said polyacrylate.

5. (Currently Amended) A fluid as claimed in claim 4, wherein said activator is selected from triethanolamine, NaOH, KOH and NH₄OH ~~NH₄OH~~.

6. (Previously Presented) A fluid as claimed in claim 5, further including a breaker in an amount of 0.1-1.0% wt.

7. (Previously Presented) A fracturing fluid comprising a polar base, 0.1-5.0% of a mid-molecular weight polyacrylate, an activator for ionizing said polyacrylate to a hygroscopic state, and
a breaker, wherein said breaker is encapsulated.

8. (Previously Presented) A fluid as claimed in claim 7, wherein said breaker is an organic or inorganic salt.

9. (Currently Amended) A fluid as claimed in claim 8, wherein said breaker is NaCl or KCl ~~KCl~~.

10. (Previously Presented) A fluid as claimed in claim 7, wherein said polar base is selected from the group consisting of water, methanol, ethanol, propanol and isopropanol.

11. (Previously Presented) A fluid as claimed in claim 7, emulsified with liquid CO₂ or N₂ and a surfactant.

12. (Original) A fluid as claimed in claim 11, emulsified with liquid CO₂ in an amount of 50-52% to 94-95% (volume).

13. (Previously Presented) A fluid as claimed in claim 11, wherein said surfactant is an ethoxylated alkylphenol.

14. (Previously Presented) A fluid as claimed in claim 10, containing up to 50% N₂ or CO₂.

15. (Currently Amended) A fracturing fluid consisting essentially of a polar base, 0.1-5.0% of a mid-molecular weight polyacrylate, an activator for ionizing said polyacrylate to a hygroscopic state, and a breaker in an amount of 0.1-1.0% wt, wherein said breaker is NaCl or KCl ~~Kcl~~.

16. Cancelled

17. Cancelled

18. Cancelled

19. (Previously Presented) A fluid as claimed in claim 15, wherein said polar base is selected from the group consisting of water, methanol, ethanol, propanol and isopropanol.

20. (Previously Presented) A fluid as claimed in claim 19, emulsified with liquid CO₂ or N₂ and a surfactant.

21. (Previously Presented) A fluid as claimed in claim 20, emulsified with liquid CO₂ in an amount of 50-52% to 94-95% (volume).

22. (Previously Presented) A fluid as claimed in claim 20, emulsified with liquid CO₂ in an amount of 52% to 95% (volume).

23. (Previously Presented) A fluid as claimed in claim 20, wherein said surfactant is an ethoxylated alkylphenol.

24. (Previously Presented) A fluid as claimed in claim 19, containing up to 50% N₂ or CO₂.

25. (Previously Presented) A fluid as claimed in claim 15 wherein said polyacrylate is a polyacrylic acid polymer cross linked with polyalkenyl ethers or di-vinyl glycol.

26. (Previously Presented) A fluid as claimed in claim 25, wherein said polyacrylate is present in particles of about 0.2 micron diameter.

27. (Previously Presented) A fluid as claimed in claim 26, wherein said fluid is provided with 0.1-5.0% (wt) of an activator to initiate hydration of said polyacrylate.

28. (Currently Amended) A fluid as claimed in claim 27, wherein said activator is selected from triethanolamine, NaOH, KOH and NH₄OH ~~NH₄OH~~.

29. (Previously Presented) A fluid as claimed in claim 28, wherein said breaker is encapsulated.

30. (Previously Presented) A fluid as claimed in claim 1 wherein said polyacrylate is a polyacrylic acid polymer cross linked with polyalkenyl ethers or di-vinyl glycol.

31. (Previously Presented) A fluid as claimed in claim 30, wherein said polyacrylate is present in particles of about 0.2 micron diameter.

32. (Previously Presented) A fluid as claimed in claim 31, wherein said fluid is provided with 0.1-5.0% weight of an activator to initiate hydration of said polyacrylate.

33. (Previously Presented) A fluid as claimed in claim 32, wherein said activator is selected from triethanolamine, NaOH, KOH and NH_4OH .

34. (Previously Presented) A fluid as claimed in claim 33, wherein said breaker is encapsulated.

35. (Previously Presented) A fluid as claimed in claim 1, wherein said polar base is selected from the group consisting of water, methanol, ethanol, propanol and isopropanol.

36. (Previously Presented) A fluid as claimed in claim 1, foamed with liquid CO_2 or N_2 and a surfactant.

37. (Previously Presented) A fluid as claimed in claim 36, foamed with liquid CO_2 in an amount of 50-52% to 94-95% (volume).

38. (Previously Presented) A fluid as claimed in claim 36, foamed with liquid CO_2 in an amount of 50-95% (volume).

39. (Previously Presented) A fluid as claimed in claim 36, wherein said surfactant is an ethoxylated alkylphenol.

40. (Previously Presented) A fluid as claimed in claim 1, containing up to 50% N_2 or CO_2 .

41. (Previously Presented) A fluid as claimed in claim 6, wherein said breaker is an organic or inorganic salt.

42. (Currently Amended) A fluid as claimed in claim 41, wherein said breaker is NaCl or KCl ~~KCl~~.

43. (Previously Presented) A fluid as claimed in claim 41, wherein said polar base is selected from the group consisting of water, methanol, ethanol, propanol and isopropanol.

44. (Previously Presented) A fluid as claimed in claim 42, foamed with liquid CO_2 or N_2 and a surfactant.

45. (Previously Presented) A fluid as claimed in claim 44, foamed with liquid CO₂ in an amount of 50-52% to 94-95% (volume).
46. (Previously Presented) A fluid as claimed in claim 44, foamed with liquid CO₂ in an amount of 52-95% (volume).
47. (Previously Presented) A fluid as claimed in claim 44, wherein said surfactant is an ethoxylated alkylphenol.
48. (Previously Presented) A fluid as claimed in claim 2, containing up to 50% N₂ or CO₂.
49. (Previously Presented) A fracturing fluid comprising a polar base, 0.1-5.0% of a mid molecular weight polyacrylate, an activator for ionizing said polyacrylate to a hygroscopic state wherein said fluid is emulsified with liquid CO₂, or N₂ and a surfactant.
50. (Previously Presented) A fluid as claimed in claim 49, emulsified with liquid CO₂ in an amount of 50-52% to 94-95% (volume).
51. (Previously Presented) A fluid as claimed in claim 49, emulsified with liquid CO₂ in an amount of 52% to 95% (volume).
52. (Previously Presented) A fluid as claimed in claim 49, wherein said surfactant is an ethoxylated alkylphenol.
53. (Previously Presented) A fluid as claimed in claim 52, wherein said polyacrylate is a polyacrylic acid polymer cross linked with polyalkenyl ethers or di-vinyl glycol.
54. (Previously Presented) A fluid as claimed in claim 53, wherein said polyacrylate is present in particles of about 0.2 micron diameter.
55. (Previously Presented) A fluid as claimed in claim 54, wherein said fluid is provided with 0.1-5.0% (wt) of an activator to initiate hydration of said polyacrylate, wherein said activator is selected from triethanolamine, NaOH, KOH and NH₄OH.

56. (Previously Presented) A fluid as claimed in claim 55, additionally comprising a breaker.

57. (Previously Presented) A fluid as claimed in claim 56, wherein said breaker is encapsulated.

58. (Previously Presented) A fluid as claimed in claim 57, wherein said breaker is an organic or inorganic salt.

59. (Currently Amended) A fluid as claimed in claim 58, wherein said breaker is NaCl or KCl ~~Ket~~.

60. (Previously Presented) A fluid as claimed in claim 59, wherein said polar base is selected from the group consisting of water, methanol, ethanol, propanol and isopropanol.